CALLOGOBIUS BAUCHOTAE NEW SPECIES FROM MARSHALL ISLAND (GOBIIDAE, PISCES)

by

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Abstract. – A new species *Callogobius bauchotae* was found in Marshall Island. The new species is characterized by : LL 25 ; TR 8 ; 6 predorsal scales ; D VI, 19 ; A 17 ; P 17. Its pelvic fins, without fraenum, are united only at their bases. *Callogobius bauchotae* is closely related to *C. snelliusi* Koumans, 1953 and to *C. centrolepis* Weber, 1909. It differs from both by having a different colour pattern, less predorsal scales, partly separated pelvicsand by the absence of the pelvic fraenum. A key to the species of *Callogobius* is given.

Keywords : Gobiidae, Marshall Island, *Callogobius*.

Résumé. – Une nouvelle espèce, *Callogobius bauchotae*, a été découverte à l'île Marshall. Elle est caractérisée par : LL 25 ; TR 8 ; 6 écailles prédorsales ; D VI, 19 ; A 17 ; P 17. Ses nageoires pelviennes, dépourvues de velum (en Anglais, fraenum), sont unies uniquement à leur base. *Callogobius bauchotae* se rapproche beaucoup de *C. snelliusi* Koumans, 1953 et de *C. centrolepis* Weber, 1909. Il diffère de ces deux derniers par la coloration, le plus petit nombre d'écailles prédorsales, les nageoires pelviennes partiellement séparées et l'absence de velum.

The genus *Callogobius* Bleeker, 1874 is distinguished from all other gobiids genera by possessing many papillated flaps on the head. This genus includes 17 species which represent a wide range of meristic counts and morphological characteristics (Goren, in press). The species of this genus are found from the Islands of Oceania to the eastern coast of Africa (including the Red Sea).

A specimen of *Callogobius* which was collected in 1976 in Marshall Island by the Bauchot-Randall Expedition was examined and found to be a representative of a new species which is described herein.

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Abbreviations used :

A,D,P – anal, dorsal, pectoral fins ; BD – body depth ; LL – number of scales along the body ; SL – standard length ; TL – total length ; TR – number of transverse rows of scales.

Callogobius bauchotae new species

(Fig. 1)

Holotype

Fish collection of Muséum National d'Histoire Naturelle, Paris. MNHN 1976-184 ; Coll. Bauchot-Randall. Total length 42.1 mm ; standard length 33.2 mm ; head length 10.3 mm ; body depth 6.2 mm.

Description

LL 25 ; TR 8 ; 6 predorsal scales ; 3 rows of scales on cheek and 3-4 rows on opercle ; D VI, I 9 ; A 17 ; P 17.

HL 24 % of TL and 31 % of SL ; BD 15 % of TL and 19 % of SL ; snout tip-insertion of anal fin distance 43 % of TL and 59 % of SL ; snout tip-first dorsal fin insertion 29 % of TL and 36 % of SL ; snout tip-second dorsal fin insertion 42 % of TL and 53 % of SL ; Gill rakers 2+1+6, long and slender ; caudal fin length 86 % of head length ; eye diameter 24 % of head length ; snout 31 % of head length.

Body elongate and compressed. Head depressed. Mouth small and oblique. Maxillae extend to below anterior nostril, which is midway between the snout tip and the eye. Both nostrils in tubes. Many vertical and horizontal papillated flaps on head. Eyes very close. The interorbital space is very narrow (about 1/4 of eye diameter), with 2 median pores. Gill opening restricted. Tongue rounded. Teeth in both jaws arranged in bands. The outer teeth enlarged. Anterior dorsal fin a little higher than body depth. The first spine is longest, reaching to the origin of the second branched ray of the second dorsal fin. The second dorsal fin height about equal to body depth. Pectoral fins long and pointed, tips reaching to below the third branched ray of second dorsal fin. Pelvic fins without fraenum, united only at their bases with a delicate membrane. Caudal fin shorter than head.

Scales : Ctenoid scales posteriorly to a vertical line from the insertion of the first dorsal fin. The scales on breast, pre-pelvic and predorsal regions, opercle and cheek are all cycloid.

Colour (preserved) : Body and head yellowish. Four irregular wide dark cross bands on body. All fins are blackish to colourless.

Etymology

The species is named in honour of the ichtyologist Dr. M.-L. Bauchot (Muséum National d'Histoire Naturelle, Paris).

Remarks

Callogobius bauchotae is closely related to *C. snelliusi* Koumans, 1953 and *C. centrolepis* Weber, 1909. *C. bauchotae* differs from both species by having less scales along the body (LL of both = 28-30), and on the predorsal area (8 in *C. centrolepis* and 10-12 in *C. snelliusi*). The pelvics of *C. bauchotae* are not fully united and the pelvic fraenum is absent, while the other two species have fully united pelvics and the pelvic fraenum is present. *C. bauchotae* also has a different pattern of colour on the body. The arrangement of the papillated flaps on the head of *C. bauchotae* was compared to that of *C. snelliusi* as demonstrated in drawings given by Prince Akihito and Meguro, 1977, and found to be different. In addition to the above-mentioned differences, *C. bauchotae* also differs from *C. centrolepis* by possessing more soft dorsal rays (7 in *C. centrolepis*).

Comprehensive key to the *Callogobius* species

1. Predorsal unscaled 2
. Predorsal scaled 3
2. 60-70 scales in LL . . . . *C. tanegasimae* (Snyder, 1908)
. ± 35 scales in LL . . . . *C. mannarensis* Rangerajan, 1968
3. ± 70 scales in LL, ± 30 predorsal scales . . . .
. . . . *C. andamanensis* Menon and Chatterjee, 1974
. Less than 50 scales in LL and less than 22 predorsal scales 4
4. Cycloid scales only (in some specimens of *C. clarki* several
ctenoid scales on the base of caudal fin) 5
. No cycloid scales on caudal peduncle 8
5. Pelvic fins fully united, fraenum present 6
. Pelvics separated (at least partly), fraenum absent . . . .
. . . . *C. bifasciatus* (Smith, 1958)
6. 41 or less scales in LL . . . . *C. clarki* (Goren, 1978)
. 42 or more scales in LL 7
7. ± 12 scales in TR. 8-9 soft rays in second dorsal fin . *C. liolepis* Koumans, 1931
. 16-21 scales in TR. 10-11 soft rays in second dorsal fin . . . .
. . . . *C. okinawae* (Snyder, 1908)
8. Pelvics fully united, fraenum present 10
. Pelvics not fully united, fraenum absent 9
9. 37-38 scales in LL and 12-13 scales in TR. 16-17 predorsal scales . . . . . .
. . . . *C. flavobrunneus* (Smith, 1958)
. 25 scales in LL and 8 scales in TR. 6 predorsal scales . . . . *C. bauchotae* n.sp.
10. 12 or more soft dorsal rays. 11 or more soft anal rays . . . .
. . . . *C. seshaiyai* (Jacob and Rangarajan, 1959)
. 10 or less soft dorsal rays. 9 or less soft anal rays 11

11. 16 or more scales in TR . . . . *C. hasseltii* (Bleeker, 1851)
. 12 or less scales in TR 12
12. ± 15 predorsal scales . . . . *C. sclateri* (Steindachner, 1880)
. 12 or less predorsal scales 13
13. 7 soft dorsal rays . . . . *C. centrolepis* Weber, 1909
. 8-10 soft dorsal rays 14
14. Vertical crossbars on body (regular or irregular) 16
. Horizontal lines of light spots on body 15
15. Light spots on body. Caudal fin shorter than head . . . *C. irrasus* (Smith, 1959)
. Horizontal dark lines on body. Caudal fin longer than head . . . .
. . . . *C. dori* Goren, in press
16. 19-20 pectoral rays, tongue truncate . . . . *C. plumatus* (Smith, 1959)
. 16 pectoral rays, tongue rounded . . . . *C. snelliusi* Koumans, 1953

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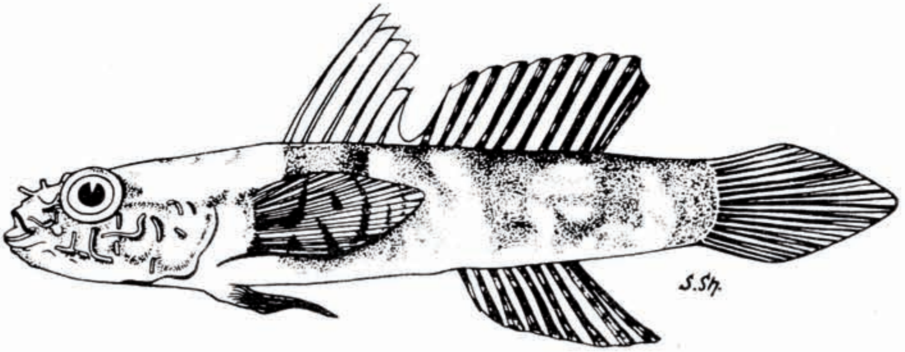

Fig. 1. – Holotype of *Callogobius bauchotae*